PCI2S232485I

Instruction Manual

PCI Serial Adapter

2-Port PCI to RS232/422/485 Serial Adapter Card with ESD Protection

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FCC Compliance Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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Introduction

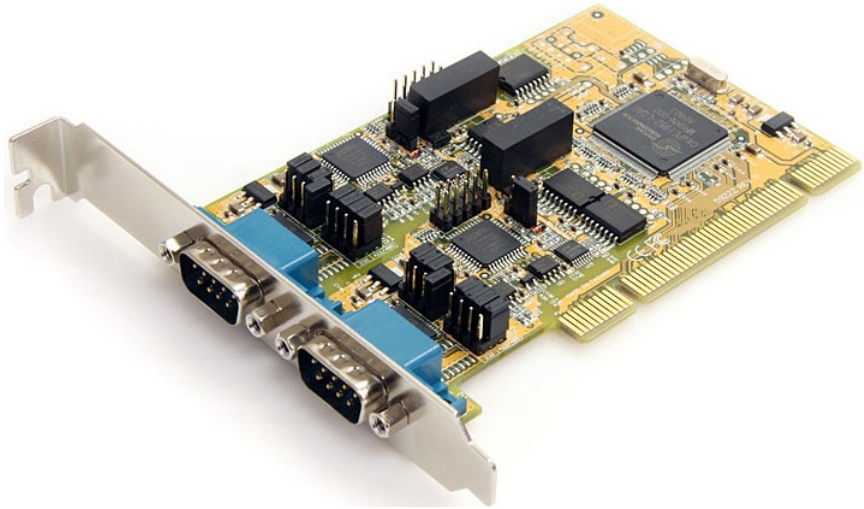
The StarTech.com PCI to RS232/422/485 Serial Adapter Card is a universal all-in-one PCI Serial adapter card that allows you to turn a PCI or PCI-X slot into 2 serial ports capable of communicating in RS-232, RS-422, or RS-485. Featuring 2,500Vrms Isolation and 15KV ESD protection and two DB9 serial ports that can be independently configured to support RS-422, RS-485 2-wire, RS-485 4-wire, or RS-232 mode up to a maximum baud rate of 921.6Kbps per port.

Packaging Contents

- 1 x PCI2S232485I adapter card
- 1 x Driver CD
- 1 x Instruction Manual

System Requirements

- PCI enabled computer system with available PCI slot
- Microsoft® Windows® XP/Server 2003/Vista/Server 2008 R2/7 (32/64-bit), or Windows XP Embedded/POSReady 2009/CE 4.x/5.0, or Linux®



Installation

WARNING! PCI cards, like all computer equipment, can be severely damaged by static electricity. Be sure that you are properly grounded before opening your computer case or touching your PCI card. StarTech.com recommends that you wear an anti-static strap when installing any computer component. If an anti-static strap is unavailable, discharge yourself of any static electricity build-up by touching a large grounded metal surface (such as the computer case) for several seconds. Also be careful to handle the PCI card by its edges and not the gold connectors.

Hardware Installation

1. Turn your computer off and any peripherals connected to the computer (i.e. Printers, external hard drives, etc.). Unplug the power cable from the rear of the power supply on the back of the computer and disconnect all peripheral devices.
2. Remove the cover from the computer case. Refer to documentation for your computer system for details.
3. Locate an open PCI or PCI-X slot and remove the metal cover plate on the rear of the computer case.
4. Set the jumpers on the card to the desired configuration. See “How to Use” section for jumper descriptions.
5. Insert the card into the open PCI or PCI-X slot and fasten the card’s bracket to the rear of the case.
6. Place the cover back onto the computer case.
7. Insert the power cable into the socket on the power supply and reconnect all other connectors removed in Step 1.

Driver Installation

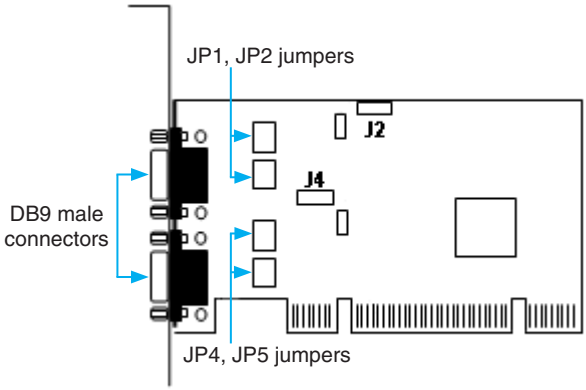
Windows XP/Server 2003

1. When the Found New Hardware wizard appears on the screen, insert the Driver CD into your CD/DVD drive. If you are prompted to connect to Windows Update, please select the “No, not this time” option and click Next.
2. Select the option “Install Drivers Automatically (Recommended)” and then click the Next button.
3. Windows should now start searching for the drivers. Once this has completed, click the Finish button.

Windows Vista/Server 2008 R2/7

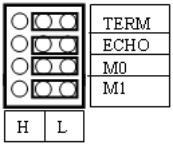
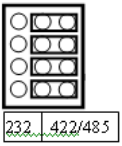
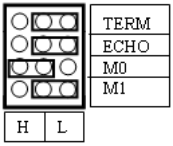
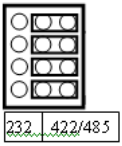
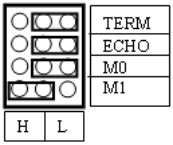
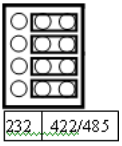
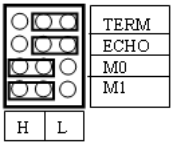
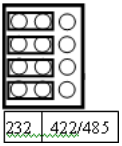
1. When the Found New Hardware window appears on the screen, click on the “Locate and install drivers software (recommended)” option. If prompted to search online, select the “Don’t search online” option.
2. When prompted to insert the disc, insert the Driver CD that came with the card, into your CD/DVD drive and Windows will automatically proceed to search the CD.
3. If a Windows Security dialog window appears, click the “Install this driver software anyway” option to proceed.
4. Once the driver is installed, click the Close button.

How to Use



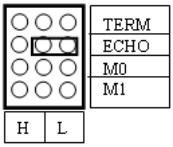
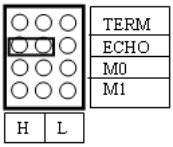
Mode Settings

There are two jumpers for each port that are used to set its operation mode. JP1/JP2 for Port 1 (S1) and JP4/JP5 for Port 2 (S2).

JP2 (for S1 port) / JP5 (for S2 port)	JP1 (for S1 port) / JP4 (for S2 port)	Description
		RS485 - 2-wire (Default)
		RS485 4-wire
		RS422
		RS232

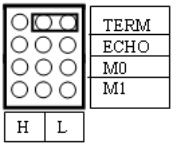
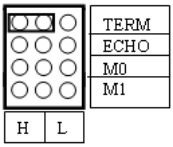
Transmission Echo

This jumper determines if transmission data will be echoed back. The Echo mode is useful to detect if the RS485 bus has data collision. If the echoed data is not equal to the transmitted data, then there is collision. This setting only affects the RS485 2-wire mode. It doesn't affect RS485 4-wire, RS422 or RS232 modes.

JP2 (for S1 port)/JP5 (for S2 port)	Description
	No data echo. (**Default**)
	Transmission data will be echoed back

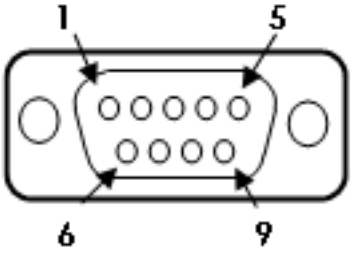
Termination Resistor

This jumper enables/disables the 120 Ohm termination resistor between DATA+ and DATA- of the RS485 transceiver:

JP2 (for S1 port)/JP5 (for S2 port)	Description
	Termination Resistor Disabled (**Default**)
	Termination Resistor Enabled

NOTE: All other headers and jumpers on the card that are not documented, should **not** be altered/used.

Pinout Diagram



RS232

9 Pins	Signal
1	DCD
2	RXD
3	TXD
4	DTR
5	GND
6	DSR
7	RTS
8	CTS
9	RI

RS422(4-wire)/485 (4-wire/2-wire)

9 Pins	Signal
1	TXD- (DATA-)
2	TXD+ (DATA+)
3	RXD+
4	RXD-
5	GND
6	NC
7	NC
8	NC
9	NC

Specifications

Bus Interface	PCI revision 2.2 (3.3/5V slot connector)
Form Factor	Full Profile
Chipset ID	Oxford OXuPCI952
Connectors	2 x DB9 male
Supported Protocols	RS232/422/485
Maximum Data Transfer Rate	921.6Kbps
Operating Temperature	0°C ~ 55°C (32°F ~ 131°F)
Storage Temperature	-20°C ~ 85°C (-4°F ~ 185°F)
Humidity	5 ~ 95% RH
Dimensions (LxWxH)	121.0mm x 74.0mm x 18.0mm
Weight	100g
Compatible Operating Systems	Windows XP/Server 2003/Vista/ Server 2008 R2/7 (32/64-bit), CE 4.x/5.0, Linux

Technical Support

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Warranty Information

This product is backed by a lifetime warranty.

In addition, StarTech.com warrants its products against defects in materials and workmanship for the periods noted, following the initial date of purchase. During this period, the products may be returned for repair, or replacement with equivalent products at our discretion. The warranty covers parts and labor costs only. StarTech.com does not warrant its products from defects or damages arising from misuse, abuse, alteration, or normal wear and tear.

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